U.S. Application No.: 09/492,300

Attorney Docket No.: Q55891

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the

application:

LISTING OF CLAIMS:

1. (currently amended): A display device, having:

at least two sets of maximum luminance including an image maximum luminance for displaying an image and an ordinary maximum luminance for displaying non-image information,

said ordinary maximum luminance being lower than said image maximum luminance,

wherein said display device is operable to simultaneously display the image at the image

maximum luminance and the non-image information at the ordinary maximum luminance and a

visibility of the non-image information is not reduced when displayed at ordinary maximum

luminance, and

wherein an entire display screen is adjusted to a brightness of display not higher than said

ordinary maximum luminance in accordance with an operation using graphical user interface.

and

wherein the image is displayed at a maximum luminance level for the display represented

by n bits and wherein the non-image information is displayed at a maximum level represented by

n-3 bits or less than n-3 bits.

2. (original): The display device according to claim 1, further having a luminance

adjusting unit which, when the non-image information is displayed in cases of display of only the

image, or display of a mixture of the image and the non-image information, or display of only

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the non-image information, adjusts a brightness of the display in an area of the non-image information or in an entire display screen in accordance with said ordinary maximum luminance.

- 3. (original): The display device according to claim 1, further having a luminance switching unit which switches a brightness of display in an entire display screen to either adjustment depending on said ordinary maximum luminance or adjustment depending on said image maximum luminance.
- 4. (original): The display device according to claim 3, wherein said luminance switching unit has a selection unit which makes adjustment to the brightness of the display depending on said image maximum luminance in a case of display of only the image and makes adjustment to the brightness of display depending on said ordinary maximum luminance in a case of display of only the non-image information and which also selects the brightness of display depending on said ordinary maximum luminance and the brightness of display depending on said image maximum luminance.
 - 5. (canceled).
- 6. (original): The display device according to claim 1, wherein adjustment of a brightness of display in relation to said ordinary maximum luminance and said image maximum luminance is performed by adjustment of either a light source for display or image data or both.
- 7. (previously presented): The display device of claim 1, wherein the non-image information comprises textual information.
 - 8. (canceled).
- 9. (currently amended): The display device of claim <u>\$1</u>, wherein the non-image information is displayed at a maximum level represented by n-3 bits.

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10. (currently amended): The display device of claim <u>81</u>, wherein adjustment of brightness of display in relation to said ordinary maximum luminance and said image maximum luminance is performed by adjustment of a light source for display.

- 11. (previously presented): The display device of claim 10, wherein adjustment of the light source comprises increasing or decreasing current through the light source.
- 12. (previously presented): The display device of claim 11, wherein the light source comprises multiple light sources.
- 13. (previously presented): The display device of claim 12, further comprising a light source control unit which controls current through each of the multiple light sources independently to increase brightness in a region of a display screen or in an entire display screen.
- 14. (previously presented): The display device of claim 13, wherein said display device receives a control signal supplied externally to distinguish image and non-image information for display and adjusting brightness of the display based on the control signal.
- 15. (previously presented): The display device of claim 14, wherein the control signal determines a type of image signal received in the display device, and the brightness is automatically adjusted for image and non-image areas based on the control signal.
 - 16. (currently amended): A display device, having:

at least two sets of maximum luminance including an image maximum luminance for displaying an image and an ordinary maximum luminance for displaying non-image information, said ordinary maximum luminance being lower than said image maximum luminance,

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wherein said display device receives a control signal supplied externally to distinguish image and non-image information for display and adjusting brightness of the display based on the control signal, and

wherein the control signal determines a type of image signal received in the display device and the image maximum luminance is set to one of a first image maximum luminance and a second image maximum luminance, wherein said first image maximum luminance and the second image maximum luminance are different from each other and are different from the ordinary maximum luminance, said image maximum luminance being set according to the control signal, and

wherein an entire display screen is adjusted to a brightness of display not higher than said ordinary maximum luminance in accordance with an operation using graphical user interface, <u>and</u>

wherein the image is displayed at a maximum luminance level for the display represented by n bits and wherein the non-image information is displayed at a maximum level represented by n-3 bits or less than n-3 bits.

- 17. (previously presented): The display device of claim 1, wherein said display device receives a control signal supplied externally to distinguish image and non-image information for display and adjusts a brightness of the display based on the control signal.
- (previously presented): The display device of claim 1, wherein an adjustment of 18. brightness of display in relation to said ordinary maximum luminance and said image maximum luminance is performed by adjustment of a plurality of light sources for display, further comprising a light source control unit which controls current through each of the plurality of the

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light sources independently to change brightness in a region of a display screen and to maintain brightness in another region of the display screen.

19. (currently amended): A display device, having:

at least two sets of maximum luminance including an image maximum luminance for displaying an image and an ordinary maximum luminance for displaying non-image information, said ordinary maximum luminance being lower than said image maximum luminance,

wherein the image maximum luminance is substantially in the range of 400 cd/m^2 - $10,000 \text{ cd/m}^2$ and the ordinary maximum luminance is substantially in the range of 40 cd/m^2 - 400 cd/m^2 , and

wherein an entire display screen is adjusted to a brightness of display not higher than said ordinary maximum luminance in accordance with an operation using graphical user interface, and

wherein the image is displayed at a maximum luminance level for the display represented by n bits and wherein the non-image information is displayed at a maximum level represented by n-3 bits or less than n-3 bits.

- 20. (previously presented): The display device of claim 18, wherein the region of the display screen corresponds to one of the image and the non-image information and the another region of the display screen corresponds to another of the image and the non-image information.
- 21. (previously presented): The display device of claim 20, wherein the region and the another region are displayed substantially simultaneously.

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AMENDMENT UNDER 37 C.F.R. § 1.114(c) U.S. Application No.: 09/492,300

22. (previously presented): The display device of claim 1, further having a plurality of ordinary maximum luminance levels corresponding to respective one of a plurality diagnostic apparatuses connected to the display device.

23. (currently amended): A display device, having:

at least two sets of maximum luminance including an image maximum luminance for displaying an image and an ordinary maximum luminance for displaying non-image information, said ordinary maximum luminance being lower than said image maximum luminance,

wherein said display device receives a control signal supplied externally to distinguish image and non-image information for display and adjusts brightness of the display based on the control signal, wherein the control signal determines a type of image signal received in the display device and the image maximum luminance is set to one of a first image maximum luminance and a second image maximum luminance, wherein said first image maximum luminance and the second image maximum luminance are different from each other and are different from the ordinary maximum luminance, and wherein said image maximum luminance is set according to the control signal, and

wherein an entire display screen is adjusted to a brightness of display not higher than said ordinary maximum luminance in accordance with an operation using graphical user interface, and

wherein the image is displayed at a maximum luminance level for the display represented by n bits and wherein the non-image information is displayed at a maximum level represented by n-3 bits or less than n-3 bits.

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24. (previously presented): The display device of claim 1, wherein said image maximum luminance and ordinary maximum luminance are in units of candela/m².

25. (currently amended): A display device, having:

at least two sets of maximum luminance including an image maximum luminance for displaying an image and an ordinary maximum luminance for displaying non-image information, said ordinary maximum luminance being lower than said image maximum luminance,

wherein a brightness of a display of the non-image information at the ordinary maximum luminance is reduced to a value about equal to an eighth or less than an eighth of a brightness of a display of the image, and

wherein an entire display screen is adjusted to a brightness of display not higher than said ordinary maximum luminance in accordance with an operation using graphical user interface, and

wherein the image is displayed at a maximum luminance level for the display represented by n bits and wherein the non-image information is displayed at a maximum level represented by n-3 bits or less than n-3 bits.

- 26. (previously presented): The display device of claim 1, wherein a brightness of a display of the non-image information at the ordinary maximum luminance is less than a brightness of a display of the image without any loss of gradation resolution of the non-image information.
- 27. (previously presented): The display device of claim 3, wherein the display screen simultaneously displays the image and the non-image information.

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28. (previously presented): The display device of claim 3, wherein said luminance switching unit switches the brightness of the display in the entire display screen depending on if a means for pointing shown in the display screen is at an image area or at a non-image information area of the display screen.

- 29. (previously presented): The display device of claim 3, wherein an area of the display screen not displaying the image and the non-image information is rendered in black.
- 30. (previously presented): The display device of claim 21, wherein the region is entirely displayed at one of the image maximum luminance and the ordinary maximum luminance and the another region is entirely displayed at another of the image maximum luminance and the ordinary maximum luminance.
- 31. (previously presented): The display device of claim 1, wherein when the image and the non-image information are displayed, a brightness of an entire display screen is adjusted to one of the ordinary maximum luminance and the image maximum luminance.
- 32. (previously presented): The display device of claim 1, wherein when the image and the non-image information are displayed simultaneously, a brightness of an entire display screen is switched between the ordinary maximum luminance and the image maximum luminance.
- 33. (previously presented): The display device of claim 1, wherein when the image and the non-image information are displayed simultaneously, a brightness of an entire display screen is adjusted to the ordinary maximum luminance.
- 34. (previously presented): The display device of claim 31, wherein the switching between the ordinary maximum luminance and the image maximum luminance is automatically

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performed depending on if a means for pointing shown in the display screen is at an image area

or at a non-image area information area of the display screen.

35. (canceled).

36. (previously presented): The display device of claim 1, wherein said image that is

displayed at the maximum luminance level is a medical image for medical diagnostic, and said

display device is a medical image display device for a medical diagnostic apparatus.

37. (currently amended): A display device, having:

at least two sets of maximum luminance including an image maximum luminance for

displaying an image and an ordinary maximum luminance for displaying non-image information,

said ordinary maximum luminance being lower than said image maximum luminance,

wherein, if a size of said image being displayed is so small that there occurs a blank area

in an image-assigned region, said blank area is rendered in black in order to enhance the

visibility of said image, and

wherein an entire display screen is adjusted to a brightness of display not higher than said

ordinary maximum luminance in accordance with an operation using graphical user interface,

<u>and</u>

wherein the image is displayed at a maximum luminance level for the display represented

by n bits and wherein the non-image information is displayed at a maximum level represented by

n-3 bits or less than n-3 bits.

38. (currently amended): A display device, having:

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at least two sets of maximum luminance including an image maximum luminance for displaying an image and an ordinary maximum luminance for displaying non-image information,

said ordinary maximum luminance being lower than said image maximum luminance,

wherein the image is shown at a brightness whose maximum value is not higher than said

image maximum luminance and said non-image information is shown at a brightness whose

maximum value is not higher than said ordinary maximum luminance, and

wherein an entire display screen is adjusted to a brightness of display not higher than said

ordinary maximum luminance in accordance with an operation using graphical user interface,

and

wherein the image is displayed at a maximum luminance level for the display represented

by n bits and wherein the non-image information is displayed at a maximum level represented by

n-3 bits or less than n-3 bits.

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